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| EXAMINER |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *04 January 2006*.

2a)☐ This action is **FINAL**.      2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *9-25* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 January 2006* is/are:  a)☐ accepted or b)☒ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All    b)☐ Some *   c)☐ None of:

       1.☒ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

# DETAILED ACTION

## *Drawings*

1.      The drawings are objected to because Figures 1-15 should be labeled with proper descriptive legends suc as Real Time Protocol (RTP).  Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

## *Specification*

2.      The specification is objected to because of the following informalities:

        Add a reference to PCT application and Foreign priority in the first sentence of the specification.

Appropriate correction is required.

### *Claim Objections*

3.      Claims 9, 10, 11, 12, 13, 14, 16, 17 and 22 are objected to because of the following informalities:

In claim 9 line 4 recites "the network access level" and "the application package level". These should be changed to –a network access level--- and ---an application package level----.

In claim 9 line 6 and 11 recites "the two streams" lacks antecedent basis.

In claim 9 line 11 recites "the transmission channel" which should be changed to ---a transmission level---.

In claim 10 line 7 recites "the coded initial packets" which should be changed to –a coded initial packets---. Similar problem exists in claim 11 line 7.

In claim 10 lines 9-10 recites "the protocol stack" which should be changed to ---a protocol stack---.  Similar problem exists in claim 12 line 4, claim 13 line 4, claim 14 line 4.

In claim 16 line 1 recites "the decompression step " should be changed to ---a compression step---.

In claim 17 lines 3-4 recites "the channel coder" and "the channel decoder" which should be changed to ---a channel coder--- and ---a channel decoder---.

In claim 22 line 7 lacks antecedent basis for "the two streams". Also lacks antecedent basis for "the transmission channel" at line 7.

Appropriate correction is required.

## *Claim Rejections - 35 USC § 103*

4.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.      The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.      Determining the scope and contents of the prior art.
2.      Ascertaining the differences between the prior art and the claims at issue.
3.      Resolving the level of ordinary skill in the pertinent art.
4.      Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

6.      This application currently names joint inventors.  In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary.  Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

7.      Claims 9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Miyashita et al. (5828784) in view Tourunen et al. (20020001298) and Battin et al.

(20020199019).

   **For claims 9 and 22**, Miyashita et al. disclose generating estimated original data

and quantized additional information (see column 5 line 47 and column 6 lines 10-11),

transmitting the two streams (input data and additional data are two streams which are

mentioned in the prior art reference Miyashita et al.) to a header compression step

which generates packet containing reconstructed data and packets containing additional

information (see column 6 lines 43-45); generating useful data packets with compressed

header on the basis of the packets including the useful data (see column12 lines 35-36)

and packets including the additional information and transmitting the two streams thus

sent over the transmission channel (see column 16 line 60). Miyashita et al. disclose all

the subject matter but fails to mention a method for exchanging data between two layers

of a network stack in a data transmission system comprising a header compression

and/or decompression mechanism comprising the following steps, for a transmission of

the information from the network access level to the application package level; For a

transmission of the information from the application package level to the network access

level. However, Tourunen et al. disclose  a method for exchanging data between two

layers of a network stack in a data transmission system (see paragraph 22 lines 1-8)

comprising a header compression and/or decompression mechanism (see paragraph

23 lines 1-14) comprising the following steps:, for a transmission of the information from

the network access level to the application package level and for a transmission of the

information from the application package level to the network access level (see

paragraph 22 lines 1-8), for transmission of the information from the application

package level to the network access level (see paragraph 22 lines 1-8). Thus, it would

have been obvious to one ordinary skill in the art at the time of invention was made to include Tourunen et al. bidirectional compression method into Miyashita et al. compression scheme. The method can be implemented in the compression scheme. The motivation of doing this is to provide the advantage that header compression methods requiring bi-directional connection also function immediately on radio bearers which on account of to the application would only need a one way radio bearer. A further advantage is no extra signaling is needed to setup the reverse connection because bi-directional nature is already taken into consideration when the radio bearer is setup (see paragraph 8 lines 1-8). Miyashita et al. and Tourunen et al. disclose all the subject matter but fails to mention a network stack. However, Battin et al. from a similar field of endeavor disclose a network stack (see paragraph 39 lines 1-12). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Battin et al. network stack scheme into Miyashita et al. and Tourunen et al. compression scheme. The method can be implemented in a processor or communication device. The motivation of doing this is to reduce the compressed headers between different layers (see paragraph 8 lines 1-6).

8.      Claims 10-21 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita et al. in view of Tourunen et al. and Battin et al. as applied to claims 9 and 22 above, and further in view of Cassiers et al. (20050002265).

**For claims 10, 11 and 23,** Miyashita et al. disclose all the subject matter but fails to mention wherein for the transmission flowing from the network access level to application package level, shaping the quantized additional information as a function of

the characteristics of the protocol stack. However, Tourunen et al from a similar field of endeavor disclose wherein for the transmission flowing from the network access level to application package level (see paragraph 22 lines 1-8), shaping the quantized additional information as a function of the characteristics of the protocol stack (quantized additional information is described by Miyashita et al., see paragraph 20 lines 1-5). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Tourunen et al. bidirectional compression method into Miyashita et al. compression scheme. The method can be implemented in the compression scheme. The motivation of doing this is to provide the advantage that header compression methods requiring bi-directional connection also function immediately on radio bearers which on account of to the application would only need a one way radio bearer. A further advantage is no extra signaling is needed to setup the reverse connection because bi-directional nature is already taken into consideration when the radio bearer is setup (see paragraph 8 lines 1-8). Miyashita et al. and Tourunen et al. disclose all the subject matter but fails to mention characteristics of protocol stack. However, Battin et al. from a similar field of endeavor disclose and define protocol stack (see paragraph 48 lines 1-22). Thus, it would have bee obvious to one ordinary skill in the art at the time of invention was made to include Battin et al. network scheme into Miyashita et al. and Tourunen et al. compression scheme. The method can be implemented in a processor or communication device. The motivation of doing this is to reduce the compressed headers between different layers (see paragraph 8 lines 1-6). Miyashita et al., Tourunen et al. and Battin et al. disclose all the subject matter but fails to mention comprising the

following steps: differentiating the information originating from the transmission channel

or from the channel decoder into a stream of initial packets and a stream of previously

quantized additional information, transmitting the coded initial packets and the additional

information to a header decompression step, transmitting the two streams thus obtained

to a source coding step. However Cassiers et al. from a similar field of endeavor

disclose differentiating the information originating from the transmission channel or from

the channel decoder into a stream of initial packets (see paragraph 90 lines 6-7) and a

stream of previously quantized additional information (see paragraph 111 line 2)

transmitting the coded initial packets and the additional information to a header

decompression step (see paragraph 89 lines 1-8), transmitting the two streams thus

obtained to a source coding step (see paragraph 69 lines 7-9). Thus, it would have been

obvious to one ordinary skill in the art at the time of invention was made to include

Cassiers et al. header compression scheme into Miyashita et al., Tourunen et al. and

Battin et al. header compression scheme. The method can be implemented in the

channel coder and decoder. The motivation of doing this is to reduce the large overhead

on data transmission (see paragraph 3 lines 1-9).

**For claims 12, 13, 14, 24 and 25**, Miyashita disclose all the subject matter but

fails to mention wherein for the transmission of information wherein the transmission of

information flowing from the application level to the network access level. However,

Tourunen et al from a similar field of endeavor disclose wherein for the transmission

flowing from the network access level to application package level (see paragraph 22

lines 1-8). Thus, it would have been obvious to one ordinary skill in the art at the time of

invention was made to include Tourunen et al. bidirectional compression method into

Miyashita et al. compression scheme. The method can be implemented in the

compression scheme. The motivation of doing this is to provide the advantage that

header compression methods requiring bi-directional connection also function

immediately on radio bearers which on account of to the application would only need a

one way radio bearer. A further advantage is no extra signaling is needed to setup the

reverse connection because bi-directional nature is already taken into consideration

when the radio bearer is setup (see paragraph 8 lines 1-8). Miyashita et al. and

Tourunen et al. disclose all the subject matter but fails to mention characteristics of

protocol stack. However, Battin et al. from a similar field of endeavor disclose and

define protocol stack (see paragraph 48 lines 1-22). Thus, it would have bee obvious to

one ordinary skill in the art at the time of invention was made to include Battin et al.

network scheme into Miyashita et al. and Tourunen et al. compression scheme. The

method can be implemented in a processor or communication device. The motivation of

doing this is to reduce the compressed headers between different layers (see paragraph

8 lines 1-6). Miyashita et al., Tourunen et al. and Battin et al. disclose all the subject

matter but fails to mention comprising the following steps: differentiating the packets

originating from the protocol stack into a stream of initial packets and a stream of

additional information packets, compressing the headers of the initial packets and

transmitting them to a channel coding step, shaping the additional information by

extracting some additional information for transmission to the channel coding step,

transmitting the stream generated by the channel coding for sending to the transmission

channel. Cassiers et al. from a similar field of endeavor disclose comprising the following steps: differentiating the packets originating from the protocol stack into a stream of initial packets (paragraph 90 lines 6-7) and a stream of additional information packets see paragraph 111 line 2), compressing the headers of the initial packets and transmitting them to a channel coding step (paragraph 69 lines 3-9), shaping the additional information by extracting some additional information for transmission to the channel coding step (see paragraph 87 lines 1-5), transmitting the stream generated by the channel coding for sending to the transmission channel (see paragraph 69 lines 7-90), Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Cassiers et al. header compression scheme into Miyashita et al., Tourunen et al. and Battin et al. header compression scheme. The method can be implemented in the channel coder and decoder. The motivation of doing this is to reduce the large overhead on data transmission (see paragraph 3 lines 1-9).

**For claims 15, 17 and 18**, Miyashita et al., Tourunen et al. and Battin et al. disclose all the subject matter but fails to mention wherein the decompression step consists of differentiating the packets originating from the transmission channel, reconstructing the original packets of data, transmitting the additional information generated to the channel coder or to the channel decoder. However, Cassiers et al. from a similar field of endeavor disclose wherein the decompression step consists in differentiating the packets originating from the transmission channel (paragraph 93 lines 1-6), reconstructing the original packets of data (see paragraph 91 lines 9-10), transmitting the additional information generated to the channel coder or to the channel

decoder (see paragraph 91 lines 10-13). Thus, it would have been obvious to one

ordinary skill in the art at the time of invention was made to include Cassiers et al.

header compression scheme into Miyashita et al., Tourunen et al. and Battin et al.

scheme. . The method can be implemented in the channel coder and decoder. The

motivation of doing this is to reduce the large overhead on data transmission (see

paragraph 3 lines 1-9).

**For claims 16, 19, 20 and 21**, Miyashita et al. disclose all the subject matter but

fails to mention transmitting them to the application package level. However, Tourunen

et al. from a similar field of endeavor disclose transmitting them to the application

package level (see paragraph 22 lines 1-8). Thus, it would have been obvious to one

ordinary skill in the art at the time of invention was made to include Tourunen et al.

bidirectional compression method into Miyashita et al. compression scheme. The

method can be implemented in the compression scheme. The motivation of doing this is

to provide the advantage that header compression methods requiring bi-directional

connection also function immediately on radio bearers which on account of to the

application would only need a one way radio bearer. A further advantage is no extra

signaling is needed to setup the reverse connection because bi-directional nature is

already taken into consideration when the radio bearer is setup (see paragraph 8 lines

1-8). Miyashita et al., Tourunen et al. and Battin et al. disclose all the subject matter but

fails to mention wherein the decompression step includes differentiating the packets

originating from the transmission channel, reconstructing the original packets of data,

generating additional packets containing the additional information. However, Cassiers

et al. from a similar field of endeavor disclose differentiating the packets originating from

the transmission channel (paragraph 93 lines 1-6), reconstructing the original packets of

data (see paragraph 91 lines 9-10), generating additional packets containing the

additional information(see paragraph 90 line 5). Thus, it would have been obvious to

one ordinary skill at the time of invention was made to include Cassiers et al. header

compression scheme into Miyashita et al., Tourunen et al. and Battin et al. header

compression scheme. The method can be implemented in the channel coder and

decoder. The motivation of doing this is to reduce the large overhead on data

transmission (see paragraph 3 lines 1-9).


### *Conclusion*

9.      The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Hans et al. (7289536) and Chapman (6438123).


        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to MOHAMMAD ANWAR whose telephone number is

(571)270-5641.  The examiner can normally be reached on Monday-Thursday, 9am-

4pm.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ferris W. Derrick can be reached on 571-272-3123.  The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MOHAMMAD ANWAR
Examiner
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